REMARKS/ARGUMENTS

Claims 1-14 remain for consideration in this application. Claim 13 is amended herewith. Claim 12 has been objected to as containing a misspelling of the word "restraint." Claims 1-14 have been variously rejected under the provisions of 35 USC §102(b) and/or §103(a).

The Examiner's objection to claim 12 is directed to a misspelling of the word "restraint" in the first line of the claim. Applicant has searched the text of claim 12 without finding such a misspelling. However, Applicant has found the word "restraint" in the first line of claim 13 to have been spelled "restraintr." Applicant has appropriately amended the spelling of this word in claim 13. Applicant thus believes that this objection has been fully met and satisfied.

The Examiner has rejected claims 1-3, 5-7 and 9-12 as anticipated by U.S. Patent No. 2,388,458 to Alfonte. Alfonte teaches the use of:

> "anti-friction means associated with the fork lift and adapted to cooperte with convnetional pallets so that the goods may be automatically spaced above the bearing surface of the pallet while being removed by a power-operated pusher (column 2, lines 2-7, underlining added)."

Before commencing further discussion of Alfonte, Applicant wishes to describe the standard four-way pallet openings referred to in claims 1 and 5 and the claims that depend therefrom with reference to Figs. 2 and 3 of the present application. As shown particularly in Fig. 3, in standard four-way pallets, the four-way channels are cut into the beams 34 to which the boards 40 are attached. As boards are generally attached to the upper surface of the beams with only small gaps between them, and as the channels 42 are formed in the beams so that they extend over only a minor fraction of the beams' 34 typical nominal 4" (10 cm) height, anything associated with the blades, such as the rollers 17 depicted in Figs. 2-4 of Alfonte, would have to extend more than the distance between the top of the four-way channel 42 to the top of the beam 34 plus the thickness of the

boards 40. To the extent that the lift channels are not cut to the depth of a major fraction (i.e., greater than 50%) of the beam 34, even assuming a zero thickness for the blades of the lift truck, which is far from achievable, anything extending above the surface of the blades of a lift truck sufficiently to extend above the upper surface of the pallet 30 could not fit into the four-way channels. When the typical thickness of the lift blades of a lift truck are added, the depth of the channels would have to extend so far into the beam 34 as to significantly weaken the pallet 30. In any event, the inventor does not believe that standard four-way pallets were even in use at the time of filing of the Alfonte patent in 1944.

The fork lift device 10 of Alfonte is depicted in Figs. 1, 2, 4 and 6, as having its blades inserted in the main lift channels (see elements 44 in Fig. 2 of the present application) and the rollers 17 mounted on the blades as by mounts 19, extending upward from the blades by an amount equal to the thickness of the boards forming the upper surface of the pallet plus the small gap created between the pallet and the cargo carried by it. Moreover, the pallet shown in these figures does not even include four-way channels.

While such lift truck blades with such rollers might be extendable into the four-way entries of the current standard pallet with such four-way entries (something Alfonte neither teaches nor shows) the height of the rollers above the surface of the lift truck blades in Alfonte would not reach above the upper surface of the standard pallet even if boards were removed from or sufficiently spaced apart to form a corresponding gap in the upper surface. Indeed, in order for the rollers 17 to function, it would be necessary to cut the beams away from top to bottom. leaving nothing to hold the pallet together. Indeed, such a pallet would neither be a standard pallet of Alfonte's era nor of the era of the present application.

Furthermore, as shown in Figs. 2, 4 and 6, the push plate extends downward such that it apparently just clears the rollers 17. Thus, even if the pallet did have four-way channels, there is no teaching in Alfonte of modifying the push plate 20 so that it would extend above the surface of the pallet when the upper surface of the blades are in contact with the upper limits of the four-way openings, nor of modifying the anti-friction devices so that they could extend above the upper surface of the boards.

As mentioned above, Alfonte only shows and teaches the extending of the blades of the lift truck into the main lift channels of the pallet. In such orientation, the blades of the lift truck are generally parallel to the beams and perpendicular to the long axes of the boards forming the upper surface of the pallet. Alfonte does not teach pushing the cargo off in a direction parallel to the long axes of the boards, as would be the case if the blades were extended into four-way channels, but rather in a direction perpendicular to the boards.

It should also be understood from the quote from column 2 of Alfonte included above that it is an object of Alfonte to lift the cargo above the surface of the pallet (column 2, lines 1-7), and Alfonte distinguishes itself from other methods in which the pallet is mechanically held

> "on the forks of the [lift] truck while a mechanical pusher forces the goods, as a unit, off of the pallet onto the floor or onto the top of another unit . . ." (column 1, lines 27-30)."

teaches the need to lift the cargo from the pallet prior to pushing it off. As jmentioned above, an object of the and per when the upper surface of the lift truck blades are constrained by the limited height of the four-way channels in the beams of the pallet (see elements 34 and 42 in Fig. 3 of the present application).

Thus, Alfonte fails to teach or suggest the use of:

> [a] push plate having a lower edge and forward surface, the lower edge having sufficient clearance over the blades when the push plate is in the retracted position that it can be extended over the upper surface of a standard pallet without contacting the pallet when the blades are inserted in the four-way channels of the standard pallet" (claim 1, lines 7-11, claim 5, lines 8-12).

The device of Alfonte, moreover, has been shown not to be usable or obviously modifiable to be usable in the four-way channels to lift cargo above the surface of the pallet, as is the clearly-stated object of Alfonte.

Accordingly, and as all claims of the present application depend directly or indirectly from one of claims 1 and 5, the Alfonte patent does not anticipate or make

obvious any of the pending claims.

Claims 4 and 8 have been rejected under the provisions of 35 USC §103(a) as being unpatentable over Alfonte in view of U.S. Patent No. 5,009,562 to Hosotani, et al.

The teachings of Alfonte and Hosotani, whether taken alone or in combination, do not anticipate or make obvious any of claims 1-14. Hosotani is directed to a lift truck in which a push pull mechanism is provided:

> "including a face plate with a gripper adapted to grip a slip sheet under a load to be carried by the load carrier" (column 2, lines 16-18).

The gripper 30 of Hosotani can be extended and actuated to grip a slip sheet underlying cargo and overlying the pallet.

The gripper is not intended to grip a pallet. Rather, it is intended to grip a slip sheet, as clearly stated in the Detailed Description of the Invention of Hosotani:

> The face plate 28 has a gripper 30 which includes a gripper jaw 32 disposed under the face plate 28 and adapted to grip a slip sheet lying under a load. Also included by the gripper 30 is a gripper cylinder, not illustrated, which is operative to open or close the gripper jaw 32. Designated by the reference numeral 34 is a sheet retainer adapted for the recovery of a slip sheet used to lie under a load. The retainer 34 includes a retainer cylinder, not illustrated" (column 4, lines 31-39).

Firstly, it is not clear how one would modify the gripper jaw 32 of the gripper 30 to act as a gate, as asserted by the Examiner, nor whether anything in the Hosotani patent relates to other than the use of slip sheets. Indeed, a search of the full text of Hosotani in the "full text and image database" on the uspto.gov web site by applicant's attorney failed to find any reference to pallets, although multiple references were found to the term "slip sheet." Nor can any motivation or teaching be found in Alfonte or Hosotani for combining the two. The apparatus taught by Alfonte raises the cargo above the surface of a pallet, as explained above, while the apparatus of Hosotani is intended for use with slip sheets. Further, it is not clear to what exent the slip sheet gripper 30 and its jaw 32 are vertically adjustable. As the push plate or face plate may be extended past the ends of the blades or platens 24 of the lift truck, as shown in Fig . 2, clearance over a pallet does not

appear to be taught or discussed. Further, the width of the blades or platens 24 appears to be greater than the width of four-way channels of standard patents.

Consequently, Hosotani cannot be properly combined with Alfonte in the absence of appropriate teachings, and Hosotani does not appear to contain teachings relating to palletized cargo in any event. Further, no basis was found in Hosotani for suggesting that the gripper could be used as, or could be modified to serve as "a lower gate as taught by hosotani et al. in order to allow the device to compensate for variations in the height of pallets it might have to handle" as stated by the Examiner in the Office Action. Furthermore, even if such a gate were derivable from the teachings of Alfonte combined with Hosotani, and even if the combination of the slip sheet teachings of Hosotani with the palletized cargo teachings of Alfonte wouldn't turn these patents on their heads, there is no teaching or suggestion as to how to use the anti-friction means, such as the rollers 17, which would interfere with the sliding of cargo on and off of platens of a lift truck. Accordingly, the present claims are not obvious in view of Alfonte taken with Hosotani, and reconsideration and withdrawal of this ground of rejection is respectfully requested.

Claim 13 has been rejected under the provisions of 35 USC §103(a) as unpatentable over Alfonte as applied to claim 5 and further in view of U.S. Patent No. 2,639,051 to Thomas. The Examiner asserts that Alfonte teaches the limitations of claim 5. Applicant disputes this based on the arguments set forth above with relation to Alfonte. Further, the Examiner asserts in making this rejection that Alfonte could be modified to include:

> "a gripper as taught by Thomas in order to grip a pallet that may have a solid top, thereby allowing the device to work with a wider range of pallets."

Applicant disagrees. In this regard, Alfonte clearly teaches:

> More recently, attempts have been made to overcome this shortcoming of fork-lift trucks by mechanically holding the pallet or skid on the forks of the truck while a mechanical pusher forces the goods, as a unit, off of the pallet onto the floor or onto the top of another unit previously placed in position. These more recent lift trucks however are not entirely satisfactory, not only because it is essential that special pallets, having an uninterrupted load-

> bearing surface for the goods be pushed therefrom . . Furthermore, since the goods bear directly on the pallet surface as they are being pushed off, it is apparent that their removal is often rendered difficult, if not impossible, by reason of nail heads, splinters, etc., projecting from from the surface of the pallet" (column 1, lines 25-46).

Clearly, Alfonte teaches against the use of mechanical grippers to grip the pallets as well as the sliding of goods while Thomas teaches the opposite. In this regard, Thomas teaches:

> It is a further object of this invention to provide an unloading device incorporating means for gripping the platten or pallet during the unloading operation thus preventing undesired movement of the pallet on the forks" (column 2, lines 36-40).

Further, Fig. 22 of Thomas discloses a pallet that apparently has a continuous surface, which would need to be modified by the making of apertures to allow passage of the anti-friction means disclosed by Alfonte (although Thomas states that its push plate may be extended:

> a sufficient distance to unload any platten or pallet now in commercial use thus providing an efficient labor saving device and one in which the form of the stacked load is maintained during and after unloading" (column 1, lines 17-21).

Thus, Alfonte clearly teaches against its combination with gripping devices such as those taught by Thomas, and the teachings of the two patents may not be properly combined.

Claim 14 has been rejected under the provisions of 35 USC §103(a) as unpatentable over Alfonte as applied to claim 5 and further in view of U.S. Patent 4,861,223 to Olson.

It should first be noted that Olson, like Hosotani, relates to slip sheet handling, as made apparent by the titling of Olson as "Automatic Load Push-Pull Slipsheet Handler." Again, applicant disputes that Alfonte teaches the limitations of claim 5, as discussed above. As with Hosotani, a full text search by applicant's attorney failed to locate any

occurrence of the word "pallet" in the text of Olson. In any event, as it has been demonstrated above that Alfonte does not meet the requirements of claim 5, and as nothing in Olson could be found that teaches how to modify the device of Alfonte to meet the requirements of claim 5, even assuming for the sake of argument that Alfonte and Olson may be properly combined, claim 14 should be allowable even for that reason alone.

Thus, all claims being in allowable form, Applicant respectfully requests that the present objection and rejections of the present claims be reconsidered and withdrawn and that the application be allowed.

Respectfully submitted,

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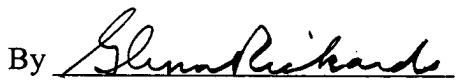
By 
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